

# **Eastern Equine Encephalitis and West Nile Virus Management Plan for Homeless Populations**

## **Office of Homeless, Housing and Transportation Services**

Homeless populations may be at higher risk for Eastern Equine Encephalitis (EEE)/West Nile Virus (WNV) and other mosquito-borne diseases due to their increased exposure to the outdoors and their limited access to preventive measures. Health care providers, outreach workers and shelter providers should vigorously promote prevention methods including the use of insect repellents, especially for homeless persons over the age of 50. Repellent use for homeless populations requires several special considerations:

### **Cost**

Access to insect repellents among persons with limited financial resources may be problematic. The Department of Health and Human Services (DHHS) and some local health departments may be able to assist with repellent supplies or may have recommendations for lower cost products. Local businesses that sell repellents may also be able to assist shelters.

### **Correct Use of Repellent**

The ability to follow directions and use the product safely is a concern if the product is made available for personal use. A repellent containing 30% or less of DEET (N, N-diethyl-meta-toluamide) is a very safe product when used as directed. While DEET can be reapplied when a person is still outdoors, most products recommend washing skin with soap and water when returning indoors. Alternative repellents such as Picaridin and oil of lemon eucalyptus can also be used.

### **Use of Repellent on Clothing**

Repellents with DEET or permethrin can be used on clothing and tents, which may be particularly useful for homeless populations. Protection from one permethrin application can last as long as six weeks, even through several launderings. Permethrin should not, however, be used directly on skin.

## **DHHS Strategy**

### **Mitigation**

Prior to the start of each mosquito season, the Office of Homeless Housing and Transportation Services (OHHTS) will survey all State funded emergency shelters and outreach agencies to assess the need for repellent, educational pamphlets, laminated posters and training (see Appendix 1).

OHHTS will, within budget limitations, assist in providing DEET and permethrin (when determined appropriate and controlled by the outreach worker) repellent to State funded emergency shelters and outreach agencies.

OHHTS, the Division of Public Health and the New Hampshire Coalition to End Homelessness (NHCEH) will coordinate the dissemination of pamphlets and posters to all continuums of care, shelter providers, advocates and consumers (see Appendix 2).

OHHTS, the Division of Public Health and the NHCEH will work together to provide direct training to homeless persons, outreach workers and shelter providers to ensure, to the maximum extent practical, the correct method of repellent application and product safety (see Appendix 3). Training would also include symptom observation, prevention methods, trash and standing water removal and the need to seek medical care for those afflicted.

OHHTS will maintain and periodically update contact lists of outreach workers and shelter providers (see Appendix 4).

DHHS will work with municipal officials and local law enforcement agencies on discouraging the placement of unsheltered homeless into high-risk areas such as close proximity to rivers or high breeding areas.

The Division of Public Health will provide weekly arbovirus surveillance updates to OHHTS.

### **Response**

OHHTS will work with the Commissioner's Office and the Division of Public Health to:

1. Notify outreach workers and shelter providers of an EEE/WNV incident in the affected area;
2. Direct outreach workers to ensure, to the maximum extent practical, that unsheltered homeless persons in the affected area are informed of the incident, have sufficient repellent, and are encouraged and assisted with finding available shelter if requested;
3. To assist in the relocation of unsheltered homeless from an affected area if determined by the Commissioner;
4. Direct outreach workers to notify and help relocate unsheltered homeless from areas that are to be sprayed as determined by the municipality; and
5. Facilitate constant communication with all interested parties as to current conditions and recommendations.

### **Assessment**

At the end of the mosquito season, OHHTS will facilitate an assessment from all interested parties as to the effectiveness of the plan and to discuss areas for improvement.

## Appendix 1

	<u>Posters</u>	<u>Spray</u>	<u>Handouts</u>	<u>Notes</u>
Tri County CAP - Lynsey House	1	0	2	
Tri County CAP - HOIP	1	16	30	
Laconia Area Comm. Land Trust	2	5	10	
The Salvation Army - Laconia	5	5	1	need 5 cans for children under 2
The Salvation Army - Concord	5	5	60	
Southwestern CS - Emerg. Shelt.	12	50	100	Family so would need lower deet
Southwestern CS - HOIP	2	50	100	
Headrest	4	12	30	
Pemi Bridge House	2	10	20	Family so would need lower deet
Harbor Homes	4	0	100	
Nashua Soup Kitchen & Shelter	3	12	50	will take whatever is available
New Horizons for NH	2	75	100	
Angie's Shelter for Women	1	25	100	Family so would need lower deet
Southern NH Services - HOIP	2	12	100	
Comm. Council of Nashua - PATH	0	0	0	All set, got all they needed from Keith
MHC-GM - PATH	0	0	0	All set, got all they needed from Keith
The Friends Emergency Housing	3	30	30	Family so would need lower deet
Cross Roads House	4	100	40	Family so would need lower deet
My Friend's Place	4	24	100	Family so would need lower deet
Seacoast MHC				l/m
Community Partners	3	24	100	
Riverbend	2	12	100	
MFS				l/m
Belknap-Merrimack CAP - HOIP	24	24	100	
Rockingham CAP - HOIP	12	24	100	
Strafford CAC - HOIP	6	36	100	
<b>TOTAL</b>	<b>104</b>	<b>551</b>	<b>1473</b>	

# PROTECT YOURSELF AGAINST WEST NILE VIRUS (WNV) AND EASTERN EQUINE ENCEPHALITIS (EEE)



## How to Protect Yourself & Your Family

- WNV and EEE can be spread by the bite of an infected mosquito, which contracts the virus from an infected bird.
- Most people who get infected with WNV or EEE do not have any symptoms; some people develop a mild illness, and others develop severe neurological disease that can lead to death.
- Symptoms of severe WNV or EEE illness include headache, neck stiffness, fever, muscle weakness, paralysis, convulsions, confusion, and loss of consciousness. *Contact your health care provider if you develop these symptoms.*
- *Use effective mosquito repellants* when outdoors and mosquitoes are biting.
- Repellants containing DEET, Picaridin, or Oil of Lemon Eucalyptus are proven effective. FOLLOW LABEL DIRECTIONS CAREFULLY.
- Products with 30% or less DEET are recommended for children and adults.
- Wear long sleeves and pants in light colors to minimize the opportunities for mosquitoes to bite.
- Consider the application of DEET or permethrin to your clothing as an additional protective measure.
- Limit outside activity between evening and dawn when mosquitoes are most likely to bite.

## **Mosquito Proof Your Home**

- Mosquitoes can breed in any puddle that lasts more than 4 days.
- Check around your home for standing water and drain it.
- Empty water-holding containers (including pool covers, flower pots, and bird baths) at least every three days or screen them to prevent female mosquitoes from laying eggs in the water.
- Drilling holes in the bottom of containers is another way to prevent water from collecting.
- Ensure window and door screens fit properly so that mosquitoes cannot enter your home.
- Repair or replace any torn or damaged screens.
- Keep rain gutters clean so that rain water cannot collect in them.
- Keep weeds, tall grass, and bushes trimmed because they provide an outdoor home for the mosquito most commonly associated with WNV and EEE.
- Remind and help neighbors to eliminate breeding sites on their property.

## **For More Information**

**NH Department of Health & Human Services**  
**1-866-273-NILE (6453)**  
**[www.dhhs.nh.gov](http://www.dhhs.nh.gov)**

## Appendix 3

### How Often You Should Re-apply Repellents

**Follow the directions on the product you are using.** Sweating or getting wet may mean that you need to re-apply more frequently.

**Q. How does the percentage of active ingredient in a product relate to the amount of protection it gives?**

**A.** Typically, the more active ingredient a product contains the longer it provides protection from mosquito bites. The concentration of different active ingredients cannot be directly compared (that is, 10% concentration of one product does not mean it works exactly the same as 10% concentration of another product).

DEET is an effective active ingredient found in many repellent products and in a variety of formulations.

- A product containing 23.8% DEET provided an average of 5 hours of protection from mosquito bites.
- A product containing 20% DEET provided almost 4 hours of protection.
- A product with 6.65% DEET provided almost 2 hours of protection.
- Products with 4.75% DEET were able to provide roughly 1 and a half hour of protection.

These examples represent results from only one study and are only included to provide a general idea of how such products may work. Actual protection will vary widely based on conditions such as temperature, perspiration, and water exposure.

***Hint:*** Applying permethrin to your clothing ahead of time will give you even greater protection.

***Remember—if you are getting bitten, do something about it!***

**Choose a repellent that you will use consistently.** Also, choose a product that will provide sufficient protection for the amount of time that you will be spending outdoors. Product labels often indicate the length of time that you can expect protection from a product. If you are concerned about using insect repellent, consult your health care provider for advice.

**Q. Can insect repellents be used by pregnant or nursing women?**

**A.** Other than the routine precautions noted earlier, EPA does not recommend any additional precautions for using registered repellents on pregnant or lactating women.

**Q. What are some reactions to be aware of when using insect repellents containing DEET?**

**A.** Products containing DEET are considered to be safe when used according to the manufacturer's directions. In some instances, the use of repellents that contain DEET may cause skin reactions. Eye irritation can occur if product gets in the eye. If you suspect a reaction to a product, discontinue use, wash all affected areas, and contact a medical provider. If product gets in the eyes, flush with water and consult a health care provider. If you go to a doctor, take the product with you. Products should not be ingested.

**General Considerations for Using Repellents Safely on Children**

- No more than 30% DEET should be used on adults and children.
- The American Academy of Pediatrics (AAP) recommends that repellents with DEET should not be used on infants less than 2 months old.
- The label for products containing oil of lemon eucalyptus specifies that they should not be used on children under the age of three years.
- When using repellent on a child, apply it to your own hands and then rub them on your child. Avoid children's eyes and mouth and use it sparingly around their ears.
- Never use repellents over cuts, wounds, or irritated skin.
- Do not apply repellent to children's hands. (Children may tend to put their hands in their mouths.)
- Keep repellents out of reach of children.
- Do not apply repellent under clothing.



#### Appendix 4

Providers And Addresses	Homeless Shelter Services				Homeless Prevention/ Intervention		Special Needs Programs				
	Domestic Violence	Emergency Shelter	Transitional Shelter	Specialty Shelter	HSGP/ RGP	Prevention/ Other	Outreach Intervention	Permanent Housing	Transitional Housing	Shelter + Care	PATH
<b><i>BELKNAP COUNTY</i></b>											
<b>Community Action Program</b> Belknap-Merrimack Counties PO Box 1016 Concord, NH 03302-1016 (603) 225-3295					X	X	X				
<b>GENESIS-The Counseling Group</b> <b>McGrath Street</b> 111 Church Street Laconia, NH 03246 (603) 524-1100								X			
<b>Laconia Area Community Land Trust, Inc.</b> PO Box 6104 Laconia, NH 03247-6104 (603) 524-0747			X								
<b>New Beginnings-A Women's Crisis Center</b> PO Box 622 Laconia, NH 03247 (603) 528-6511	X										
<b>Open Arms Outreach</b> 756 Union Avenue Laconia, NH 03246 (603) 524-4580			X								
<b>The Salvation Army-Laconia</b> 177 Union Avenue Laconia, NH 03246 (603) 524-1834		X									

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Northern NH Mental Health and Developmental Services <b>Gilpin House</b> 87 Washington Street Conway, NH 03818 (603) 447-3347									X		
<b>Starting Point: Services for Victims of Domestic and Sexual Violence</b> PO Box 1972 Conway, NH 03818 (603) 356-7993	X										
<b>Tri-County Community Action Program, Inc.</b> •Coos, Carroll, Grafton Counties 30 Exchange Street Berlin, NH 03570 (603) 752-7001 – 1-800-552-4617					X	X	X				X
<b>CHESHIRE COUNTY</b>											
<b>Monadnock Family Services</b> 64 Main Street, Ste. 301 Keene, NH 03431-3701 (603) 357-5270											X
<b>Southwestern Community Services, Inc. (Keene)</b> •Monadnock Area Housing Coalition •NEXT STEP Transitional Housing 69Z Island Street PO Box 603 Keene, NH 03431 (603) 352-7512		X	X		X	X	X		X		X

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	Domestic Violence	Emergency Shelter	Transitional Shelter	Specialty Shelter	HSGP/ RGP	Prevention/ Other	Outreach Intervention	Permanent Housing	Transitional Housing	Shelter + Care	PATH
<b>Women's Crisis Services of the Monadnock Region</b> 12 Court Street Keene, NH 03431-3402 (603) 352-3782	X										
<b>COOS COUNTY</b>											
<b>Coos County Family Health Services, Inc.</b> Response to Sexual & Domestic Violence 54 Willow Street Berlin, NH 03570 (603) 752-5679	X										
<b>Tri-County Community Action Program, Inc.</b> •Coos, Carroll, Grafton Counties •Friendship House 30 Exchange Street Berlin, NH 03570 1-800-552-4617					X	X	X		X		X
<b>Tri-County Community Action Program, Inc.</b> •Lynsey House Shelter 56 Prospect Street Lancaster, NH 03584 (603) 788-2344		X									

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	Domestic Violence	Emergency Shelter	Transitional Shelter	Specialty Shelter	HSGP/ RGP	Prevention/ Other	Outreach Intervention	Permanent Housing	Transitional Housing	Shelter + Care	PATH
<b>GRAFTON COUNTY</b>											
<b>Pemi-Bridge House, Inc.</b> 260 Highland Street Plymouth, NH 03264 (603) 536-7631		X									
<b>The Support Center at Burch House</b> PO Box 965 Littleton, NH 03561 (603) 444-0624	X										
<b>Tri-County Community Action Program, Inc.</b> •Coos, Carroll, Grafton Counties 30 Exchange Street Berlin, NH 03570 1-800-552-4617					X	X	X				X
<b>Voices Against Violence</b> PO Box 53 Plymouth, NH 03264 (603) 536-3423	X										
<b>West Central Behavioral Health Pine Place</b> 2 Whipple Place, Ste. 202 Lebanon, NH 03766 (603) 448-0126									X		
<b>WISE (Women's Information &amp; Services)</b> 79 Hanover Street, Ste. 1 Lebanon, NH 03766 (603) 448-5922	X										

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<b>HILLSBOROUGH COUNTY</b>											
<b>Bridges</b> P.O. Box 217 Nashua, NH 03061-0217 (603) 889-0858	X										
<b>Child and Family Services of NH</b> 99 Hanover Street PO Box 448 Manchester, NH 03105 (603) 668-1920				X		X					
<b>Community Council of Nashua</b> 7 Prospect Street Nashua, NH 03060 (603) 889-6147											X
<b>Families in Transition, Inc.</b> •Amherst Street •Spruce Street Apartments 122 Market Street Manchester, NH 03101 (603) 641-9441			X X								
<b>Greater Nashua Council on Alcoholism</b> •Keystone Hall Pine Street Extension Nashua, NH 03060 (603) 881-4848				X							

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<b>Harbor Homes</b> 45 High Street Nashua, NH 03060 (603) 881-8436		X						X			
<b>Helping Hands Outreach Ministries, Inc.</b> 50 Lowell Street PO Box 3551 Manchester, NH 03105-3551 (603) 623-8778			X								
<b>Nashua Pastoral Care Center</b> 7 Concord Street Nashua, NH 03064 (603) 886-2866			X		X	X					
<b>Nashua Soup Kitchen and Shelter</b> PO Box 3116 Nashua, NH 03061-3116 (603) 889-7770		X	X								
<b>New Hampshire Legal Assistance</b> 1361 Elm Street, Ste. 307 Manchester, NH 03101 (603) 668-2900 or 1-800-562-3174						X					
<b>New Horizons for New Hampshire</b> •Emergency Shelter •Angie's Shelter For Women 199 Manchester Street Manchester, NH 03103 (603) 668-1877		X X									

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<b>St. John Neumann</b> 708 Milford Road 101-A Merrimack, NH 03054 (603) 424-5685						X					
<b>Southern New Hampshire Services, Inc.</b> 40 Pine Street PO Box 5040 Manchester, NH 03108 (603) 668-8010						X					
<b>The Mental Health Center of Greater Manchester</b> • <b>Gemini House</b> 401 Cypress Street Manchester, NH 03103-3628 (603) 668-4111								X			X
<b>The Way Home</b> 214 Spruce Street Manchester, NH 03103 (603) 627-3491			X		X	X					
<b>YWCA Crisis Service</b> • <b>Emily's Place</b> 72 Concord Street Manchester, NH 03101 (603) 625-5785	X										

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<b>MERRIMACK COUNTY</b>											
<b>Community Action Program</b> <b>Belknap-Merrimack Counties, Inc.</b> <b>•New Start Program</b> PO Box 1016 Concord, NH 03302-1016 (603) 225-3295					X	X  X	X				
<b>Community Services Council of NH</b> <b>•Franklin Falls Farm</b> <b>•New Hampshire Helpline</b> <b>1-800-852-3388</b> <b>•Unite To Help (603) 225-9694</b> PO Box 2338 Concord, NH 03302-2338 (603) 225-9694 (603) 225-9000					X	X		X			
<b>Families in Transition, Inc.</b> <b>•5 Market Lane, (TH)</b> <b>•9 Odd Fellows Road (PH)</b> Concord, NH (603) 641-9441								X	X		
<b>Merrimack County Rape and Domestic Violence Crisis Center</b> PO Box 1344 Concord, NH 03302-1344 (603) 225-7376	X										



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<b>Merrimack Valley Assistance Program*</b> PO Box 882 Concord, NH 03302-0882 (603) 226-0607						X					
<i>*The Merrimack Valley Assistance Program is the only HOPWA program.</i>											
<b>New Hampshire Coalition Against Domestic And Sexual Violence</b> PO Box 353 Concord, NH 03302 (603) 224-8893	X**										
<i>**This is an umbrella organization for domestic violence shelters and services.</i>											
<b>New Hampshire Hospital</b> 105 Pleasant Street Concord, NH 03301 (603) 271-5300 or 1-800-852-3345									X		
<b>Riverbend Community Mental Health Services, Inc.</b> PO Box 2032 Concord, NH 03302-2032 (603) 228-1551											X
<b>The Friends Emergency Housing Program</b> 30 Thompson Street Concord, NH 03301 (603) 228-1462		X									
<b>The Salvation Army</b> <b>•McKenna House</b> 100 S. Fruit Street Concord, NH 03301 (603) 225-5587		X									

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<b>ROCKINGHAM COUNTY</b>											
<b>AIDS Response to the Seacoast</b> 1 Junkins Avenue Portsmouth, NH 03801 (603) 433-5377						X					
<b>CLM Behavioral Health Systems</b> •Beaver Lake Lodge Salem Professional Park 44 Stiles Road Salem, NH 03079 (603) 893-3548								X		X	
<b>Cross Roads House, Inc.</b> 600 Lafayette Road Portsmouth, NH 03801 (603) 436-2218		X	X								
<b>New Generation, Inc.</b> 568 Portsmouth Avenue PO Box 676 Greenland, NH 03840 (603) 436-4989				X							
<b>Rockingham Community Action, Inc.</b> 7 Junkins Avenue Portsmouth, NH 03801 (603) 431-2911					X	X	X				
<b>Seacoast Task Force On Family Violence</b> •A Safe Place 6 Greenleaf Woods Unit 101 Portsmouth, NH 03801 (603) 436-4619	X										

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<b>Seacoast Mental Health Center</b> <b>•Springbrook</b> 1145 Sagamore Avenue Portsmouth, NH 03801 (603) 431-6703								X			X
<b>STRAFFORD COUNTY</b>											
<b>Community Partners (Formerly Behavioral Health &amp; Developmental Services of Strafford County)</b> <b>•Tide View Estates</b> <b>•Rochester Family Housing</b> 113 Crosby Road, Ste. 1 Dover, NH 03820 (603) 749-4015								X	X		
<b>My Friend's Place</b> 368 Washington Street Dover, NH 03820 (603) 749-3017		X							X		
<b>Strafford County Community Action Committee</b> PO Box 160 Dover, NH 03821-0160 (603) 749-1334					X	X	X				
<b>SULLIVAN COUNTY</b>											
<b>Friends of Veterans</b> 222 Holiday Drive Ste. 5 White River Junction, VT 05001 (802) 296-8368						X					

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<b>Southwestern Community Services (including Overflow shelter))</b> PO Box 1338 Claremont, NH 03743 (603) 542-9528		<b>X</b> <b>X</b>			<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>		
<b>Women's Supportive Services</b> 11 School Street Claremont, NH 03743 (603) 543-0155	<b>X</b>										
<b>Worcester County (MA)</b> Veteran Hospice Homestead, Inc. 69 High Street Fitchburg, MA 01420 (978) 353-0234						<b>X</b>					